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ecology and environment, inc.
Global Environmental Specialists

720 Third Avenue, Suite 1700, Seattle, WA 98104
Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE: August 13, 2012

FROM: Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

TO: Jeff Fetters, START-3 Project Manager, Seattle, Washington

SUBJ: **Organic Data Quality Assurance Review,**
Fourth Avenue and Gamble Parking Lot Site, Anchorage, Alaska

REF: TDD: 12-01-0004 PAN: 002233.0757.01SI

The data quality assurance review of one SUMMA air canister sample collected from the Fourth Avenue and Gamble Parking Lot site in Anchorage, Alaska, has been completed. Volatile Organic Compound (VOC) analysis (EPA modified Method TO-15 SIM) was performed by Eurofins Air Toxics, Inc., Folsom, California. All sample analyses were evaluated following EPA's Stage 4 Data Validation Manual Process (S4VM).

The sample was numbered: 12284805

Data Qualifications:

1. **Sample Holding Times: Acceptable.**

The sample was collected on July 11, 2012, and was analyzed by July 20, 2012, therefore meeting QC criteria of less than 30 days between collection and analysis for SUMMA canister samples.

2. **Tuning: Acceptable.**

Tuning was performed at the beginning of each 12-hour analysis sequence. All results were within QC limits.

3. **Initial Calibration: Acceptable.**

All average Relative Response Factors (RRFs) were greater than the QC limit of 0.050. All water Relative Standard Deviations (RSDs) were less than the QC limits of 30%.

4. **Continuing Calibration: Acceptable.**

All RRFs were within QC limits. All % differences were within QC limits.

5. **Blanks: Acceptable.**

A method blank was analyzed for each 20 sample batch per matrix. There were no detections in any method blank.

6. System Monitoring Compounds (SMCs): Acceptable.

All SMC recoveries were within QC limits.

7. Blank Spike (BS)/BS Duplicate (BSD) Analysis: Acceptable.

BS and BSD analyses were performed per SDG or per matrix per concentration level, whichever was more frequent. All recoveries were within QC limits.

8. Duplicate Analysis: Acceptable.

Laboratory spike duplicate analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. All spike duplicate results were within QC limits.

9. Internal Standards: Acceptable.

All internal standards were within $\pm$ 30 seconds of the continuing calibration internal standard retention times. All area counts were within 50 % to 200 % of the continuing calibration area counts.

10. Precision and Bias Determination: Not Performed.

Samples necessary to determine precision and bias were not provided to the laboratory. All results were flagged "PND" (Precision Not Determined) and "RND" (Recovery Not Determined), although the flags do not appear on the data sheets.

11. Performance Evaluation Sample Analysis: Not Provided.

Performance evaluation samples were not provided to the laboratory.

12. Overall Assessment of Data for Use

Sample 12284805 was received at the laboratory at ambient pressure despite the use of a flow controller; no leaks were observed at the laboratory. Associated sample results were qualified as estimated quantities with a low bias (JL or UJL).

The overall usefulness of the data is based on the criteria outlined in the Site-Specific Sampling Plan and/or Sampling and Quality Assurance Plan, the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Sampling QA/QC Plan, and Data Validation Procedures" (EPA/540/G-90/004), the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

JH - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample with a high bias.

JL - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample with a low bias.

JK - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample with an unknown direction of bias.

JQ – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample with an unknown direction of bias and falls between the MDL and the Minimum (or Practical) Quantitation Limit (MQL, PQL).

N - The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification".

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

eurofins | Air Toxics

Client Sample ID: 12284805

Lab ID#: 1207349-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**e072021sim**	**Date of Collection:**	**7/11/12 9:47:00 AM**
Dil. Factor:	**1.34**	**Date of Analysis:**	**7/20/12 11:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013 UJL	Not Detected	0.034 UJL	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
1,1-Dichloroethane	0.027	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.027	Not Detected	0.15	Not Detected
Benzene	0.067 JL	0.14 JL	0.21	0.44 JL
1,2-Dichloroethane	0.027 UJL	Not Detected	0.11 UJL	Not Detected
Trichloroethene	0.027 UJL	Not Detected	0.14 UJL	Not Detected
Toluene	0.027	0.54 JL	0.10	2.0 JL
1,1,2-Trichloroethane	0.027 UJL	Not Detected	0.15 UJL	Not Detected
Tetrachloroethene	0.027 UJL	Not Detected	0.18 UJL	Not Detected
Ethyl Benzene	0.027	0.097 JL	0.12	0.42 JL
m,p-Xylene	0.054	0.33 JL	0.23	1.4 JL
o-Xylene	0.027	0.10 JL	0.12	0.46 JL
1,1,2,2-Tetrachloroethane	0.027 UJL	Not Detected	0.18 UJL	Not Detected
trans-1,2-Dichloroethene	0.13 JL	Not Detected	0.53 JL	Not Detected
Methyl tert-butyl ether	0.13 JL	Not Detected	0.48 JL	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

MW 8-13-12